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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/866,245	05/25/2001	Nanami Miki	450100-03244	4576

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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/866,245	MIKI ET AL.	
	Examiner	Art Unit	
	JASON K. LIN	2425	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 October 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,6,7,9-15,18,21 and 23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,6,7,9-15,18,21 and 23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 May 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is responsive to application No. 09/866,245 filed on 10/18/2010.

Claims 1, 6, 7, 9-15, 18, 21, and 23 are pending and have been examined.

Claim Rejections - 35 USC § 112

2. Claim 11 contains elements

- client module
- input means
- access means
- extracting means
- designating means
- selecting means
- searching means

which are a means (or step) plus function limitation that invokes 35 U.S.C. 112, sixth paragraph. However, the written description fails to disclose the corresponding structure, material, or acts for the claimed function.

Applicant is required to:

(a) Amend the claim so that the claim limitation will no longer be a means (or step) plus function limitation under 35 U.S.C. 112, sixth paragraph; or

(b) Amend the written description of the specification such that it expressly recites what structure, material, or acts perform the claimed function without introducing any new matter (35 U.S.C. 132(a)).

If applicant is of the opinion that the written description of the specification already implicitly or inherently discloses the corresponding structure, material, or acts so that one of ordinary skill in the art would recognize what structure, material, or acts perform the claimed function, applicant is required to clarify the record by either:

(a) Amending the written description of the specification such that it expressly recites the corresponding structure, material, or acts for performing the claimed function and clearly links or associates the structure, material, or acts to the claimed function, without introducing any new matter (35 U.S.C. 132(a)); or

(b) Stating on the record what the corresponding structure, material, or acts, which are implicitly or inherently set forth in the written description of the specification, perform the claimed function. For more information, see 37 CFR 1.75(d) and MPEP §§ 608.01(o) and 2181.

Response to Arguments

3. Applicant's arguments with respect to **claims 1, 6, 7, 9-15, 18, 21, and 23** have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. **Claims 1, 6, 7, 11-13, 15, and 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Schein et al. (US 6,133,909), in view of Livowsky (US 6,594,657), in view of Boyer et al. (US 7,165,098), in view of Hendricks (US 5,798,785), and further in view of Erdelyi (US 6,631,522).

Consider **claims 1 and 11,** Schein teaches an electronic-program-guide retrieval method and system (Col 1: lines 49-56) comprising:

a data server including an electronic-program-guide database storing program information of an electronic program guide (Col 8: line 64 - Col 9: line 1, Col 9: lines 16-17, 48-51);

a client module (computer 12-Fig.1, set top box 420-Fig.7) comprising:

input means for inputting said retrieval keywords (Col 2: lines 18-23);

accessing a EPG database to search program records based on an input retrieval keyword; (Col 13: lines 33-39) to retrieve query results related to the input retrieval keyword (Col 13: lines 36-43).

Schein does not explicitly teach a dictionary database for storing a plurality of retrieval keywords and a plurality of additional keywords relevant to said retrieval keywords; and

access means for accessing said dictionary database as a function of said retrieval keywords and the plurality of additional keywords;

when receiving the input retrieval keyword, extracting means for extracting at least one additional keyword from the dictionary database as a function of the input retrieval keyword,

wherein, when the input retrieval keyword is input by the input means, the at least one additional keyword is extracted from the dictionary database as a function of the input retrieval keyword by the extracting means;

designating means for pre-designating one particular database from among a plurality of databases, including an electronic-program-guide database, a movie information database, and a drama information database,

wherein each of the plurality of databases are provided in separate data servers for distributed arrangements at different locations;

selecting means for selecting a route to the particular database via a routing server comprising: a storage unit for storing information on a path to each of the plurality of databases; and an access unit for accessing each of the plurality of databases;

searching means for searching electronic-program-guide data from the one particular database that is pre-designated as a function of the input retrieval keyword and the at least one extracted additional keyword,

wherein, when the input retrieval keyword is input, relevant keywords, extracted by the dictionary database are sent to the routing server, and

wherein the routing server accesses one of the databases in a data server storing the particular database, storing desired data by selecting a route to the data server, whereby the desired data is obtained.

In an analogous art, Livowsky teaches a dictionary database for storing a plurality of retrieval keywords and a plurality of additional keywords relevant to said retrieval keywords (natural language interface 416-Fig.4; Col 4: line 47 – Col 5: line 25 teaches a natural language interface that is able to extract the word from a search request and creates one or more alternate search words using synonyms. *Therefore, there is a corresponding dictionary database that stores the retrieval keywords {word of the search query} in order to identify corresponding keywords relevant to those keywords extracted from the search query.* Col 4: lines 4-6, 48-51 teaches commonly assigned Application 09/327,605 is incorporated by reference in its entirety for all purposes hereinafter referred to as Livowsky'605. Livowsky'605 – P. 11: lines 11-14 teaches a knowledge database 916 used to store and retrieve contextual synonyms {dictionary database}); and

access means for accessing said dictionary database as a function of said retrieval keywords and the plurality of additional keywords (natural language interface 416-Fig.4; Col 4: line 47 – Col 5: line 25 teaches a natural language interface that is able to extract the word from a search request and creates one or more alternate search words using synonyms.

Therefore, the system is able to access the corresponding dictionary database in order to obtain alternative relevant keywords);

when receiving the input retrieval keyword, extracting means for extracting at least one additional keyword from the dictionary database as a function of the input retrieval keyword (natural language interface 416-Fig.4; Col 4: line 47 – Col 5: line 25 teaches a natural language interface that is able to extract the word from a search request and creates one or more alternate search words using synonyms. *At least one additional keyword is extracted in order to create a new search with the alternative relevant keyword*),

wherein, when the input retrieval keyword is input by the input means, the at least one additional keyword is extracted from the dictionary database as a function of the input retrieval keyword by the extracting means (natural language interface 416-Fig.4; Col 4: line 47 – Col 5: line 25 teaches a natural language interface that is able to extract the word from a search request and creates one or more alternate search words using synonyms. *At least one additional keyword is extracted relating to the keyword inputted*);

searching means for searching data from the one particular database as a function of the input retrieval keyword and the at least one extracted additional keyword that is pre-designated as a function of the input retrieval keyword and the at least one extracted additional keyword (Col 4: line 47 – Col 5: line 25 teaches a natural language interface that is able to extract the word from a search request and creates one or more alternate search words using synonyms.

Col 4: lines 33-39 teaches searching data from a database based on the keyword and at least one additional keyword, returning the results based on the keywords search to the user),

wherein, when the input retrieval keyword is input, relevant keywords, extracted by the dictionary database are sent to a routing mechanism, and wherein the routing mechanism accesses one of the databases in a data server, whereby the desired data is obtained (Col 4: lines 4-6, 48-51 teaches commonly assigned Application 09/327,605 is incorporated by reference in its entirety for all purposes hereinafter referred to as Livowsky'605. Livowsky'605 – Fig.9, P.16: lines 19-22 teaches searching a datasoup for one or more records for a match and then accessing the target database to retrieve data).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify Schein's system to include a dictionary database for storing a plurality of retrieval keywords and a plurality of additional keywords relevant to said retrieval keywords; and access means for accessing said dictionary database as a function of said retrieval keywords and the plurality of additional keywords; when receiving the input retrieval keyword, extracting means for extracting at least one additional keyword from the dictionary database as a function of the input retrieval keyword, wherein, when the input retrieval keyword is input by the input means, the at least one additional keyword is extracted from the dictionary database as a function of the input retrieval keyword by the extracting means; searching means for searching data from the one particular

database as a function of the input retrieval keyword and the at least one extracted additional keyword that is pre-designated as a function of the input retrieval keyword and the at least one extracted additional keyword, wherein, when the input retrieval keyword is input, relevant keywords, extracted by the dictionary database are sent to a routing mechanism, and wherein the routing mechanism accesses one of the databases in a data server, whereby the desired data is obtained, as taught by Livowsky, for the advantage of providing a user friendly system that accepts queries in natural language form, providing answers hat are not only just an exact match between a user formulated search, but also considers synonyms and other approximations of search words, so that the system will not fail to find a relevant answer for the user (Livowsky – Col 1: line 60 - Col 2: line 8, Col 2: lines 18-26).

Schein and Livowsky do not explicitly teach designating means for pre-designating one particular database from among a plurality of databases, including an electronic-program-guide database, a movie information database, and a drama information database,

wherein each of the plurality of databases are provided in separate data servers for distributed arrangements at different locations;

selecting means for selecting a route to the particular database via a routing server comprising: a storage unit for storing information on a path to each of the plurality of databases; and an access unit for accessing each of the plurality of databases;

searching means for searching electronic-program-guide data from the one particular database;

routing server

In an analogous art, Boyer teaches teach designating means for pre-designating one particular database from among a plurality of databases (Fig. 7; Col. 1: lines 61-65, Col 11: lines 46-57, Col: 12, lines 4-15), including an electronic-program-guide database, a movie information database (Col 4: lines 55-64),

wherein each of the plurality of databases are provided (Col 4: lines 55-64);

selecting means for selecting a route to the particular database via a routing server comprising: a storage unit for storing information on a path to each of the plurality of databases; and an access unit for accessing each of the plurality of databases; routing server; storing the particular database, storing desired data by selecting a route to the data server (Col 9: lines 38-40 and Col 6: lines 37-41 teaches issuing a search request for data to database server and therefore selects a route to the particular database based on pre-selection as a function of stored access information and path information. Boyer discloses that a plurality of databases for maintaining scheduling information can be provided {Col 4: lines 55-57}. A user submits a search through a scheduling application on web server {Col 9: lines 38-40, col. 7, lines 16-18 and col. 6, lines 37-41},

wherein the scheduling application on the web server in turn issues search request for data to the appropriate database {Col 6: lines 37-39, Col 20: lines 7-12} to obtain schedule information and provide the search results to the user {Col 20: lines 16-18}. Since the web server issues database requests to obtain schedule information pertaining to a user query, the web server is the routing server which routes the request to the appropriate databases based on user's search. Such a web server comprises a path information {criteria can be programmed into request page code} and further comprises an access unit as it is able to access schedule information from the respective databases {transform user requests into SQL requests, i.e. database requests} to which it is able to issue request);

searching means for searching electronic-program-guide data from the one particular database (Col 9: lines 38-40, Col 7: lines 16-18, Col 6: lines 37-41 teaches a user submitting a search through a scheduling program. Col 6: lines 37-39, Col 20: lines 7-12 teaches wherein the scheduling application in turn issues a search request for data to the appropriate database).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Schein and Livowsky to include designating means for pre-designating one particular database from among a plurality of databases, selecting means for selecting a route to the particular database via a routing server comprising: a storage unit for storing information on a path to each of the plurality of databases; and an access unit for accessing each of the plurality of

databases; routing server; storing the particular database, storing desired data by selecting a route to the data server; searching means for searching electronic-program-guide data from the one particular database, as taught by Boyer, for the advantage of providing a system that can efficiently maintain and manage multiple databases without fail, allowing data to be stored in a more orderly and organized manner, providing users with further search options, expanding the flexibility of search parameters.

Schein, Livowsky, and Boyer do not explicitly teach a drama information database,

databases in separate data servers for distributed arrangements at different locations;

In an analogous art, Hendricks teaches a drama information database (Col 31: lines 36-39).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Schein, Livowsky, and Boyer to include a drama information database, as taught by Hendricks, for the advantage of providing interested users a further category in which to easily query desired programming, allowing users to easily select/view desired programming.

Schein, Livowsky, Boyer, and Hendricks do not explicitly teach wherein each of the plurality of databases are provided in separate data servers for distributed arrangements at different locations;

In an analogous art, Erdelyi teaches databases in separate data servers for distributed arrangements at different locations (Col 24: lines 15-19).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Schein, Livowsky, Boyer, and Hendricks to include databases in separate data servers for distributed arrangements at different locations, as taught by Erdelyi, for the advantage of allowing for multiple databases to be individually maintained providing more specialized, specific, and more accurate data, and also increasing reliability and modularity of databases.

Consider **claim 23,** Schein teaches an electronic-program-guide retrieval system (Col 1: lines 49-56) comprising:

a data server including, one of which is a television electronic-program-guide database for storing program information of an electronic program guide (Col 8: line 64 - Col 9: line 1, Col 9: lines 16-17, 48-51) containing only keywords determined by an EPG provider as retrieval keywords (Col 13: lines 33-39, Col 13: lines 36-43);

a client (computer 12-Fig.1, set top box 420-Fig.7) having a certain data storage capacity (Col 5: lines 40-43, Col 7: lines 41-48) comprising input means for inputting a retrieval keyword for retrieving the program information (Col 2: lines 18-23);

a database provided at the client side for storing retrieval keywords (Col 9: lines 22-28, Col 13: lines 32-39);

accessing a EPG database to search program records based on an input retrieval keyword (Col 13: lines 33-39) to retrieve query results related to the input retrieval keyword (Col 13: lines 36-43).

Schein does not explicitly teach a dictionary database provided at the data server side for storing retrieval keywords and relevant keywords relevant to said retrieval keywords,

a routing server having an access unit for accessing selectively said database and route information,

wherein when retrieval keyword is input, and relevant-keyword information relevant to the retrieval keyword input by said client is extracted from said routing server and the routing server accesses one of the plurality of databases, including an electronic-program-guide database, a movie information database, and a drama information database via said routing server storing information on routes to the parts of said data server; and

wherein said routing server accesses the database by:

pre-designating one particular database from among a plurality of databases, including an electronic-program-guide database, a movie information database, and a drama information database,

wherein each of the plurality of databases are provided in separate data servers for distributed arrangements at different locations;

selecting a route to the particular database that is pre-selected via a routing server comprising: a storage unit for storing information on a path to each of the plurality of databases; and an access unit for accessing each of the plurality of databases;

searching electronic-program-guide data from the one particular database that is pre-designated as a function of the input retrieval keyword and the at least one extracted additional keyword,

wherein, when the input retrieval keyword is input, relevant keywords, extracted by the dictionary database are sent to the routing server, and

wherein the routing server accesses one of the databases in a data server storing the particular database, storing desired data by selecting a route to the data server, whereby the desired data is obtained.

In an analogous art, Livowsky teaches a dictionary database provided at the data server side for storing retrieval keywords and relevant keywords relevant to said retrieval keywords (natural language interface 416-Fig.4; Col 4: line 47 – Col 5: line 25 teaches a natural language interface that is able to extract the word from a search request and creates one or more alternate search words using synonyms. *Therefore, there is a corresponding dictionary database that stores the retrieval keywords {word of the search query} in order to identify*

corresponding keywords relevant to those keywords extracted from the search query. Col 4: lines 4-6, 48-51 teaches commonly assigned Application 09/327,605 is incorporated by reference in its entirety for all purposes hereinafter referred to as Livowsky'605. Livowsky'605 – P 11: lines 11-14 teaches a knowledge database 916 used to store and retrieve contextual synonyms {dictionary database}. P.10: lines 21-24 teaches that databases are implement on servers)

a routing mechanism having an access unit for accessing selectively said database (natural language interface 416-Fig.4; Col 4: line 47 – Col 5: line 25 teaches a natural language interface that is able to extract the word from a search request and creates one or more alternate search words using synonyms. *Therefore, the system is able to access the corresponding dictionary database in order to obtain alternative relevant keywords*),

wherein when retrieval keyword is input, and relevant-keyword information relevant to the retrieval keyword input by said client is extracted from said routing mechanism and the routing mechanism accesses one of the databases (Col 4: lines 4-6, 48-51 teaches commonly assigned Application 09/327,605 is incorporated by reference in its entirety for all purposes hereinafter referred to as Livowsky'605. Livowsky'605 – Fig.9, P.16: lines 19-22 teaches searching a datasoup for one or more records for a match and then accessing the target database to retrieve data),

searching data from the one particular database that is pre-designated as a function of the input retrieval keyword and the at least one extracted additional keyword (Col 4: line 47 – Col 5: line 25 teaches a natural language interface that is able to extract the word from a search request and creates one or more alternate search words using synonyms. Col 4: lines 33-39 teaches searching data from a database based on the keyword and at least one additional keyword, returning the results based on the keywords search to the user),

wherein, when the input retrieval keyword is input, relevant keywords, extracted by the dictionary database are sent to the routing mechanism (Col 4: lines 4-6, 48-51 teaches commonly assigned Application 09/327,605 is incorporated by reference in its entirety for all purposes hereinafter referred to as Livowsky'605. Livowsky'605 – Fig.9, P.16: lines 19-22 teaches searching a datasoup for one or more records for a match and then accessing the target database to retrieve data),

Therefore, it would have been obvious to a person of ordinary skill in the art to modify Schein's system to include a dictionary database provided at the data server side for storing retrieval keywords and relevant keywords relevant to said retrieval keywords, a routing mechanism having an access unit for accessing selectively said database, wherein when retrieval keyword is input, and relevant-keyword information relevant to the retrieval keyword input by said client is extracted from said routing mechanism and the routing mechanism accesses one of the databases, searching data from the one particular database

that is pre-designated as a function of the input retrieval keyword and the at least one extracted additional keyword, wherein, when the input retrieval keyword is input, relevant keywords, extracted by the dictionary database are sent to the routing mechanism, as taught by Livowsky, for the advantage of providing a user friendly system that accepts queries in natural language form, providing answers hat are not only just an exact match between a user formulated search, but also considers synonyms and other approximations of search words, so that the system will not fail to find a relevant answer for the user (Livowsky – Col 1: line 60 - Col 2: line 8, Col 2: lines 18-26).

Schein and Livowsky do not explicitly teach a data server including a plurality of databases,

a routing server and route information;

routing server and the routing server accesses one of the plurality of databases, including an electronic-program-guide database, a movie information database, and a drama information database via said routing server storing information on routes to the parts of said data server; and

wherein said routing server accesses the database by:

pre-designating one particular database from among a plurality of databases, including an electronic-program-guide database, a movie information database, and a drama information database,

wherein each of the plurality of databases are provided in separate data servers for distributed arrangements at different locations;

selecting a route to the particular database that is pre-selected via a routing server comprising: a storage unit for storing information on a path to each of the plurality of databases; and an access unit for accessing each of the plurality of databases;

searching electronic-program-guide data from the one particular database;

wherein the routing server accesses one of the databases in a data server storing the particular database, storing desired data by selecting a route to the data server, whereby the desired data is obtained.

In an analgous art, Boyer teaches a data server including a plurality of databases (Col 12: lines 4-22),

a routing server and route information; routing server and the routing server accesses one of the plurality of databases, including an electronic-program-guide database, a movie information database, via said routing server storing information on routes to the parts of said data server (Col 9: lines 38-40 and Col 6: lines 37-41 teaches issuing a search request for data to database server and therefore selects a route to the particular database based on pre-selection as a function of stored access information and path information. Boyer discloses that a plurality of databases for maintaining scheduling information can be provided {Col 4: lines 55-57}. A user submits a search through a scheduling

application on web server {Col 9: lines 38-40, col. 7, lines 16-18 and col. 6, lines 37-41}, wherein the scheduling application on the web server in turn issues search request for data to the appropriate database {Col 6: lines 37-39, Col 20: lines 7-12} to obtain schedule information and provide the search results to the user {Col 20: lines 16-18}. Since the web server issues database requests to obtain schedule information pertaining to a user query, the web server is the routing server which routes the request to the appropriate databases based on user's search. Such a web server comprises a path information {criteria can be programmed into request page code} and further comprises an access unit as it is able to access schedule information from the respective databases {transform user requests into SQL requests, i.e. database requests} to which it is able to issue request);

wherein said routing server accesses the database by:

pre-designating one particular database from among a plurality of databases (Fig. 7; Col. 1: lines 61-65, Col 11: lines 46-57, Col: 12, lines 4-15), including an electronic-program-guide database, a movie information database (Col 4: lines 55-64),

selecting a route to the particular database that is pre-selected via a routing server comprising: a storage unit for storing information on a path to each of the plurality of databases; and an access unit for accessing each of the plurality of databases; wherein the routing server accesses one of the databases in a data server storing the particular database, storing desired data by selecting

a route to the data server, whereby the desired data is obtained (Col 9: lines 38-40 and Col 6: lines 37-41 teaches issuing a search request for data to database server and therefore selects a route to the particular database based on pre-selection as a function of stored access information and path information. Boyer discloses that a plurality of databases for maintaining scheduling information can be provided {Col 4: lines 55-57}. A user submits a search through a scheduling application on web server {Col 9: lines 38-40, col. 7, lines 16-18 and col. 6, lines 37-41}, wherein the scheduling application on the web server in turn issues search request for data to the appropriate database {Col 6: lines 37-39, Col 20: lines 7-12} to obtain schedule information and provide the search results to the user {Col 20: lines 16-18}. Since the web server issues database requests to obtain schedule information pertaining to a user query, the web server is the routing server which routes the request to the appropriate databases based on user's search. Such a web server comprises a path information {criteria can be programmed into request page code} and further comprises an access unit as it is able to access schedule information from the respective databases {transform user requests into SQL requests, i.e. database requests} to which it is able to issue request);

searching electronic-program-guide data from the one particular database (Col 9: lines 38-40, Col 7: lines 16-18, Col 6: lines 37-41 teaches a user submitting a search through a scheduling program. Col 6: lines 37-39, Col 20:

lines 7-12 teaches wherein the scheduling application in turn issues a search request for data to the appropriate database);

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Schein and Livowsky to include a data server including a plurality of databases, a routing server and route information; routing server and the routing server accesses one of the plurality of databases, including an electronic-program-guide database, a movie information database, via said routing server storing information on routes to the parts of said data server; wherein said routing server accesses the database by: pre-designating one particular database from among a plurality of databases, selecting a route to the particular database that is pre-selected via a routing server comprising: a storage unit for storing information on a path to each of the plurality of databases; and an access unit for accessing each of the plurality of databases; wherein the routing server accesses one of the databases in a data server storing the particular database, storing desired data by selecting a route to the data server, whereby the desired data is obtained; searching electronic-program-guide data from the one particular database, as taught by Boyer, for the advantage of providing a system that can efficiently maintain and manage multiple databases without fail, allowing data to be stored in a more orderly and organized manner, providing users with further search options, expanding the flexibility of search parameters.

Schein, Livowsky, and Boyer do not explicitly teach drama information database,

wherein each of the plurality of databases are provided in separate data servers for distributed arrangements at different locations;

In an analogous art, Hendricks teaches a drama information database (Col 31: lines 36-39).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Schein, Livowsky, and Boyer to include a drama information database, as taught by Hendricks, for the advantage of providing interested users a further category in which to easily query desired programming, allowing users to easily select/view desired programming.

Schein, Livowsky, Boyer, and Hendricks do not explicitly teach wherein each of the plurality of databases are provided in separate data servers for distributed arrangements at different locations;

In an analogous art, Erdelyi teaches databases in separate data servers for distributed arrangements at different locations (Col 24: lines 15-19).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Schein, Livowsky, Boyer, and Hendricks to include databases in separate data servers for distributed arrangements at different locations, as taught by Erdelyi, for the advantage of allowing for multiple

databases to be individually maintained providing more specialized, specific, and more accurate data, and also increasing reliability and modularity of databases.

Consider **claim 6,** Schein, Livowsky, Boyer, Hendricks, and Erdelyi teach wherein the input retrieval keyword and the at least one extracted additional keyword are interrelated to each other (Livowsky - natural language interface 416-Fig.4; Col 4: line 47 – Col 5: line 25 teaches a natural language interface that is able to extract the word from a search request and creates one or more alternate search words using synonyms. *Therefore, there is a corresponding dictionary database that stores the retrieval keywords {word of the search query} in order to identify corresponding keywords relevant to those keywords extracted from the search query.* Col 4: lines 4-6, 48-51 teaches commonly assigned Application 09/327,605 is incorporated by reference in its entirety for all purposes hereinafter referred to as Livowsky'605. Livowsky'605 – P 11: lines 11-14 teaches a knowledge database 916 used to store and retrieve contextual synonyms {dictionary database}).

Consider **claim 7,** Schein, Livowsky, Boyer, Hendricks, and Erdelyi teach wherein when part of a word to be used as the input retrieval keyword is input, said word to be used as the input retrieval keyword and the at least one extracted additional keyword are extracted from a retrieval-keyword database (natural language interface 416-Fig.4; Col 4: line 47 – Col 5: line 25 teaches a natural

language interface that is able to extract the word from a search request and creates one or more alternate search words using synonyms. Col 4: lines 4-6, 48-51 teaches commonly assigned Application 09/327,605 is incorporated by reference in its entirety for all purposes hereinafter referred to as Livowsky'605. Livowsky'605 – P 11: lines 11-14 teaches a knowledge database 916 used to store and retrieve contextual synonyms {dictionary database}) storing previously input keywords (Livowsky'605 – P.12: line 26 – P.13: line 4) in a predetermined order (Livowsky'605 – P.13 – P.14).

Consider **claim 12,** Schein, Livowsky, Boyer, Hendricks, and Erdelyi teach wherein said dictionary database is provided at the client side (Schein – Col 9: lines 21-36).

Consider **claim 13,** Schein, Livowsky, Boyer, Hendricks, and Erdelyi teach wherein said dictionary database is provided at the data server side (Schein - Col 8: lines 62-67, Col 9: lines 1-9; Livowsky'605 – P.10: lines 21-24).

Consider **claim 15,** Schein, Livowsky, Boyer, Hendricks, and Erdelyi teach wherein said client accesses a necessary part of said data server via a routing server storing information on routes to the parts of said data server (Boyer - Col 9: lines 38-40, Col 6: lines 37-41).

6. **Claim 9** is rejected under 35 U.S.C. 103(a) as being unpatentable over Schein et al. (US 6,133,909), in view of Livowsky (US 6,594,657), in view of Boyer et al. (US 7,165,098), in view of Hendricks (US 5,798,785), in view of Erdelyi (US 6,631,522), Brown et al. (US 7,523,302).

Consider **claim 9,** Schein, Livowsky, Boyer, Hendricks, and Erdelyi do not explicitly teach wherein when a particular genre is relevant to cooking, a different genre is relevant to cooks.

In an analogous art, Brown teaches wherein when a particular genre is relevant to cooking, a different genre is relevant to cooks (Col 4: lines 35-49, Col 5: line 57 – Col 6: line 14, Col 6: line 45 – Col 7: line 3).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Schein, Livowsky, Boyer, Hendricks, and Erdelyi to include wherein when a particular genre is relevant to cooking, a different genre is relevant to cooks, as taught by Brown, for the advantage of providing users expanded categories allowing them to further get information that is relevant to everyday activities such as cooking, allowing them greater access to desired information.

7. **Claims 10 and 21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Schein et al. (US 6,133,909), in view of Livowsky (US 6,594,657), in view of Boyer et al. (US 7,165,098), in view of Hendricks (US 5,798,785), in view of Erdelyi (US 6,631,522), Huxley et al. (US 6,134,547).

Consider **claim 10,** Schein, Livowsky, Boyer, Hendricks, and Erdelyi do not explicitly teach wherein when a particular genre is relevant to place names, a different genre is relevant to names of persons.

In an analogous art, Brown teaches wherein when a particular genre is relevant to place names, a different genre is relevant to names of persons (Col 6: line 65 – Col 7: line 49 teaches an query method when a user types in a keyword such as 'John Williams', the related search retrieves additional keyword related to the person wherein the additional keyword includes an adjective related to place name {e.g. American Composer}. Huxley additionally discloses that any keywords maybe used as an input retrieval keyword. Therefore there exists scenarios, wherein a user may enter "American composer" {i.e. input retrieval keyword genre has an adjective related to place names} and the retrieved keywords is names of people that are American composers).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Schein, Livowsky, Boyer, Hendricks, and Erdelyi to include wherein when a particular genre is relevant to place names, a different genre is relevant to names of persons, as taught by Huxley, for the advantage of providing users expanded categories allowing them to further get information on varying items based on people and place, allowing them greater access to desired information, and more flexibility in search.

Consider **claim 21,** Schein, Livowsky, Boyer, Hendricks, and Erdelyi do not explicitly teach wherein the program information includes data relevant to place names.

In an analogous art, Huxley teaches wherein the program information includes data relevant to place names (Col 7: lines 35-40 teaches allowing to search shows by geographic locations {place names}).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Schein, Livowsky, Boyer, Hendricks, and Erdelyi to include wherein when a particular genre is relevant to place names, a different genre is relevant to names of persons, as taught by Huxley, for the advantage of providing users expanded categories allowing them to further get information on varying items based places, allowing them greater access to desired information, and more flexibility in search.

8. **Claim 14** is rejected under 35 U.S.C. 103(a) as being unpatentable over Schein et al. (US 6,133,909), in view of Livowsky (US 6,594,657), in view of Boyer et al. (US 7,165,098), in view of Hendricks (US 5,798,785), in view of Erdelyi (US 6,631,522), and further in view of Beach et al. (US 2003/0014753).

Consider **claim 14,** Schein, Livowsky, Boyer, Hendricks, and Erdelyi do not explicitly teach wherein said client downloads and stores the program information.

In an analogous art, Beach teaches wherein said client downloads and stores the program information (Paragraph 0018).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Schein, Livowsky, Boyer, Hendricks, and Erdelyi to include wherein said client downloads and stores the program information, as taught by Beach, for the advantage of providing easy and quick access to necessary information, shortening delay time in providing information to users, allowing them to quickly view and select desired programming.

9. **Claim 18** is rejected under 35 U.S.C. 103(a) as being unpatentable over Schein et al. (US 6,133,909), in view of Livowsky (US 6,594,657), in view of Boyer et al. (US 7,165,098), in view of Hendricks (US 5,798,785), in view of Erdelyi (US 6,631,522), and further in view of Lee et al. (US 6,463,428).

Consider **claim 18,** Schein, Livowsky, Boyer, Hendricks, and Erdelyi teach wherein previously input keywords (Livowsky'605 – P.12: line 26 – P.13: line 4) are stored in a retrieval-keyword database (natural language interface 416-Fig.4; Col 4: line 47 – Col 5: line 25 teaches a natural language interface that is able to extract the word from a search request and creates one or more alternate search words using synonyms. Col 4: lines 4-6, 48-51 teaches commonly assigned Application 09/327,605 is incorporated by reference in its entirety for all purposes hereinafter referred to as Livowsky'605. Livowsky'605 – P 11: lines 11-14 teaches a knowledge database 916 used to store and retrieve contextual

synonyms), but do not explicitly teach the stored keywords are arranged in order of frequency of use.

In an analogous art, Lee teaches stored keywords are arranged in order of frequency of use (Fig. 18; Col 5: lines 8-16, Col 15: lines 10-64).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Schein, Livowsky, Boyer, Hendricks, and Erdelyi to include wherein said client downloads and stores the program information, as taught by Lee, for the advantage of providing the user with a more efficient searching system, allowing for faster query of popular items, shortening the necessary time for retrieval, providing better overall response time.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON K. LIN whose telephone number is (571)270-1446. The examiner can normally be reached on 10AM - 6PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Pendleton can be reached on (571)272-7527. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Examiner, Art Unit: 2425

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